

# DESIGN

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## SIMPLE JEWELRY

(Fourth Article)

Carlton Atherton

### Twist Wire and Wire Drawing



Twisting wire is a whole field in itself. There are always new twists to be made; the possibilities will never be exhausted. It is well worth one's time to examine historic jewelry in the Museums, as the ancients were well aware of the decorative quality of twisted wire.

Let us try some different twists. Trials may be made with copper wire.

First a hook or nail should be firmly fastened in the bench, unless you are fortunate enough to have a vise; this of course is much more reliable and convenient.

Two eighteen lengths of wire will be suitable for working. To make a regular, simple twist, the wire must be annealed as thoroughly and evenly as possible. Annealing is the process of softening metal by heating it to a dull red heat and then allowing it to cool. If the twist is to be a very tight one, it may be necessary to anneal it again during the process, as the strain on the wires is very great and they might snap. For annealing wire the best results are obtained by making a coil of it, laying it on the charcoal block and applying the heat gradually, first to the center of the coil and then to the wire itself. Care must be taken to heat it evenly, a dull red heat. Wire melts easily, so it should not be heated too much. Coiling the wire insures a more even heating.

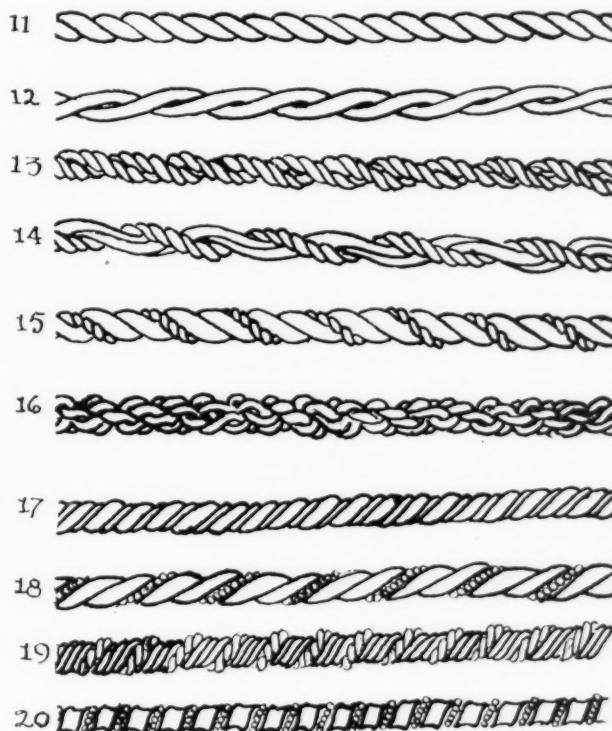
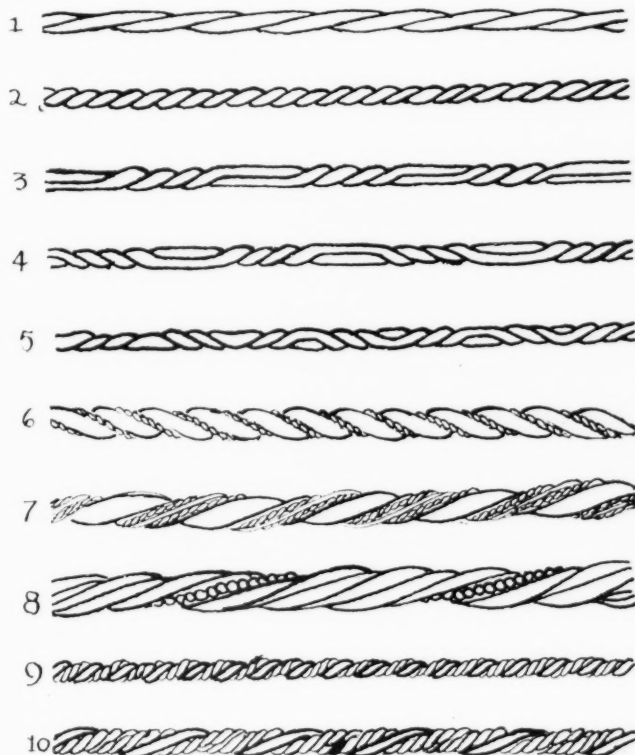
After heating, the wire must be straightened by stretching. If beaded wire is used, it must be straightened by tapping with a wooden mallet, as it would not stand the strain of stretching.

When a number of wires are to be twisted together, it is best to solder them at the ends. This keeps them from flying about and makes the twisting much simpler. In some cases, when several wires are being twisted, especially when twists and plain wires are to be used, it will be necessary to bind them all together over their whole length temporarily. This is done to keep them in their correct positions, otherwise they might loosen and cross during the twisting and ruin the whole piece.

Care must be taken, when binding wire is used, to wind it in the opposite direction to that in which the twist is to be turned, so that it loosens as the twist progresses. If it is wound in the same direction the twist is to be turned, it will tighten as the twist progresses and cut the surfaces of all the wires, marring them permanently.

Slide-tongs will be found very useful for holding the wire. A hand-vise, wooden clamps and pin-tongs will also be very convenient, according to the size of the twists to be made.

In the case of a simple twist, fasten the ends of the wires to be twisted in the vise, or by wrapping them around the nail in the bench a few times. Now the free ends are passed through a short piece of tube or pipe, and a loop made in them. A large nail or short rod of iron is then put through the loop. Spin the nail around rapidly with the index finger of the right hand, holding the tube in the left. It may be turned either to the right or the left, as the case may be. Watch the twist carefully as it progresses. When the full length of wire has been twisted to the desired tightness, it is removed from the vise and washed with borax solution. A very small piece of solder is placed at



intervals of about a half inch and then heated. As the solder melts, it should be drawn along the twist. Molten solder will always follow the flame. Soldering keeps the strands from separating when the twist is cut up into various lengths for use. Care must be taken not to use too much solder or the twist will be drowned and the effect ruined.

When soldering extremely fine twists, the solder should be applied in the form of dust. This is made by filing the solder and collecting the filings.

In making a very small twist in which the wires are very thin, either in gold or silver, *fine* metal is used. *Fine* metal is pure, or nearly pure, and is much tougher and more ductile than alloyed metal. For the reason that the metal is soft, it must not be used on any parts of a piece which will receive much wear, as it soon wears down.

Any wire which has flat sides, for instance, square, triangular, or flat, will be interesting and decorative when twisted alone (see illustrated samples). When combining round and flat-sided wire in twists, a better effect is obtained by using either two or more round and one flat-sided, or vice-versa, than by using one or two of each.

Interesting effects result from twisting two plain round wires to the right, and then combining this simple right hand twist with two heavy round wires, turning them all to the left, or vice-versa. Try several sizes of wire in making these experiments, the character of the twists will be quite different.

Any amount of variety may be obtained just through the amount of twisting. A tight twist is very different from a loose one. One or two extra turns change the character entirely. It might also be said that it is very difficult to repeat a twist. For this reason sufficient should be made in a single length to complete one piece of work.

Two simple twists, either right hand, left hand, or one of each twisted together will give a thousand varieties. They may be twisted either to the right or to the left. In twisting two or more simple twists together, the right hand twists loosen, while the left hand twists tighten if the whole is turned to the left, or vice versa.

If two right hand simple twists are turned to the left, they will both loosen as the compound twist progresses, giving a chain-like appearance.

The simple right-hand twist, placed next to a simple left-hand twist, gives the effect of plaiting.

When beaded, headed wire is used in a twist, a plain one, the same size, should be twisted with the others. This can be taken out and the beading substituted later. This is done because the beading is weak and brittle and is very liable to break in twist-

ing. Beading can be bought by the foot from any dealer in gold and silver, such as Handy & Harmon, 29-31 Gold St., New York City or James Dederick's Sons, 44 Gold St., New York City.

Very interesting results are to be had by twisting a square wire three or four times to the right, then two or three to the left, by holding it at given intervals with heavy pliers. For still more variety twisted square wire may be pulled through a round or square draw-plate. A draw-plate is a piece of steel several inches long, one or two wide, and about a quarter of an inch thick. It is pierced by several rows of holes. These holes vary in size in regular order, the largest on the plate measuring perhaps  $\frac{3}{16}$  inch in diameter and the smallest  $\frac{1}{16}$  inch. On another plate they may go from  $\frac{1}{16}$  to  $\frac{1}{32}$  inch, and on still a finer plate the finest hole may be so small that it is almost invisible. All these holes are wider on one side of the plate than the other. The draw-plate is used for reducing wire to a smaller diameter, or for altering its section, changing a round wire into a (smaller) square one.

To draw a wire of  $\frac{1}{16}$  diameter to a wire of  $\frac{1}{32}$  inch diameter, file a long point at one end. Anneal the wire as above, fasten the draw-plate in the vise, the side with the smaller hole toward you. In the absence of a vise it may be fastened to the bench by means of wooden cleats. Now rub some wax on the wire and wax the holes on the draw-plate. Try the wires in the different holes, starting with the largest and inserting the wire from the back or in the largest side of the openings, until the hole is found through which the wire, not only the point, will just pass. Put the wire into the next smaller hole. The point will come through about a quarter of an inch. Grasp this with the draw-tongs or with heavy pliers and pull through. This may be continued down through the smaller holes. After the wire has been drawn through two or three holes, it can be noticed that it is smaller in diameter, is longer and has become quite springy and hard. If it is to be drawn more, it should be annealed again.

#### Twisted Wires Fig. I

- 1—Square wire twisted to the right slowly.
- 2—Square wire twisted to the right quickly.
- 3—Square wire twisted to the right intermittently. Grip in hand-vises with leather guards or in wood-clamps.
- 4—Square wire twisted intermittently to the right and left in turn.
- 5—Square wire twisted alternately to the right and left.
- 6—Two large round wires twisted to the left and two strands of twisted wire (two small round wires twisted to the left) wound in the grooves.

(Continued on page 60)

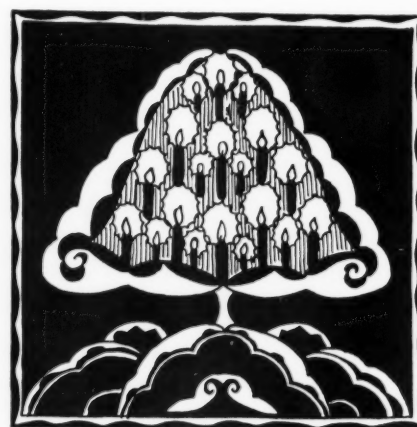
MEDALLION COMPETITION (See Pages 53 and 59)



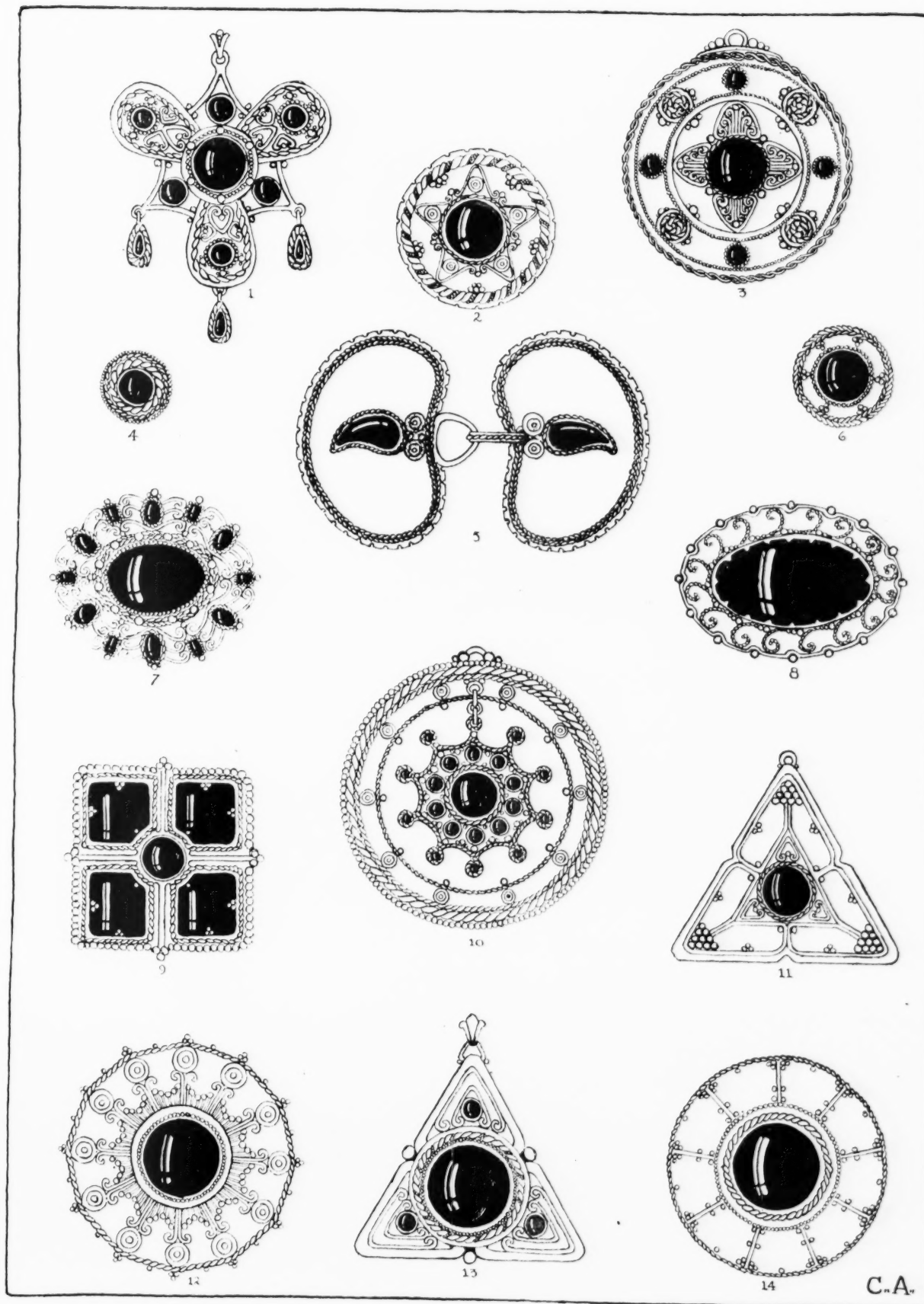
Irene Ewing Davis—December



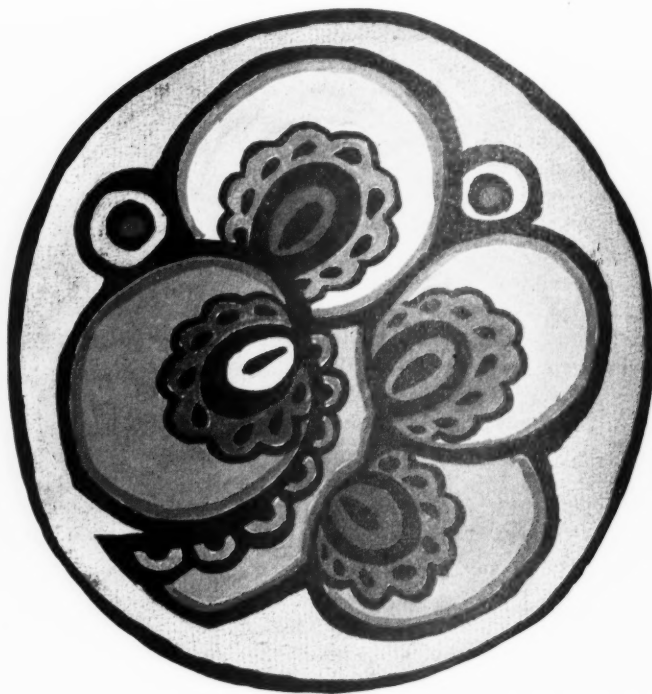
D. Millar—November



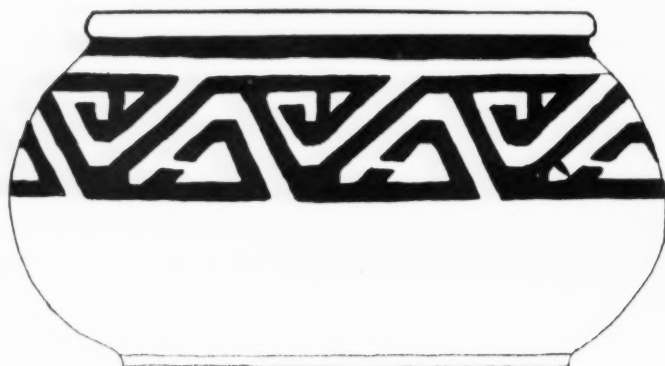
Irene Ewing Davis—December







Eva Brook Donly



Wood Morgan—Indian Design for Bowl

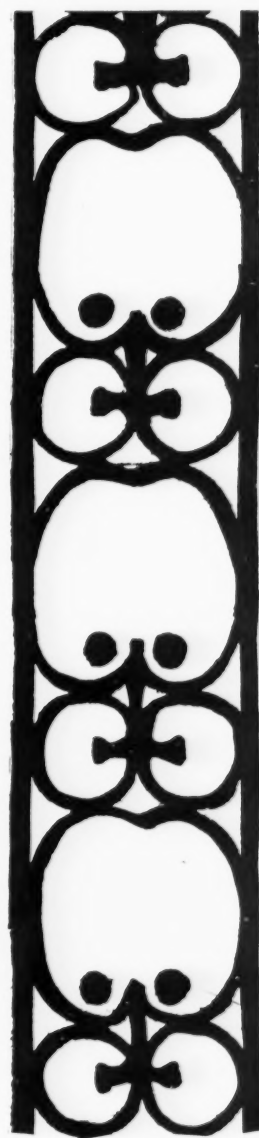
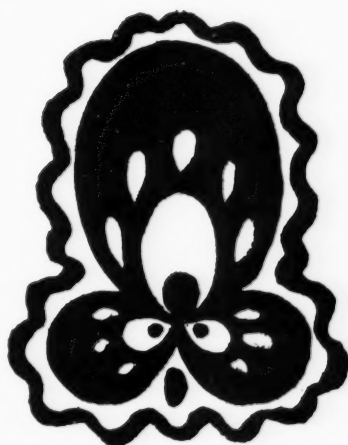
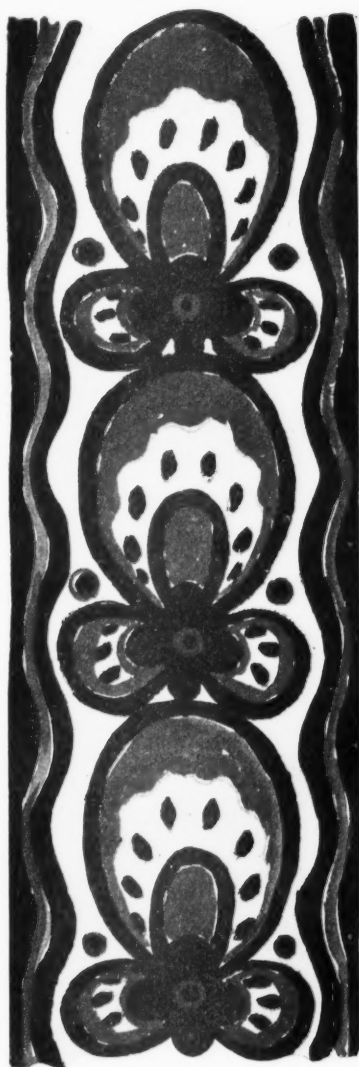
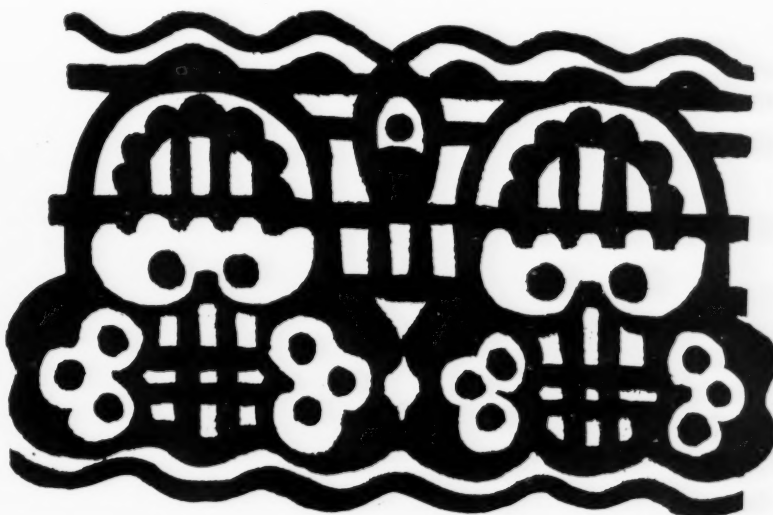


Eva Brook Donly—Tree and Leaf Motifs

## PROBLEM III

Choose a single Leaf Motif and form it into a tree. Join five of these leaves to a sturdy tree trunk by short stems. Make a composition that is free and rhythmic. An enclosing form may be used to bind it into a whole. The ancient Persians were adepts in this form of design. Make a study of their examples. Apply the tree—design in a repeat pattern, alternating it with a single leaf-design.

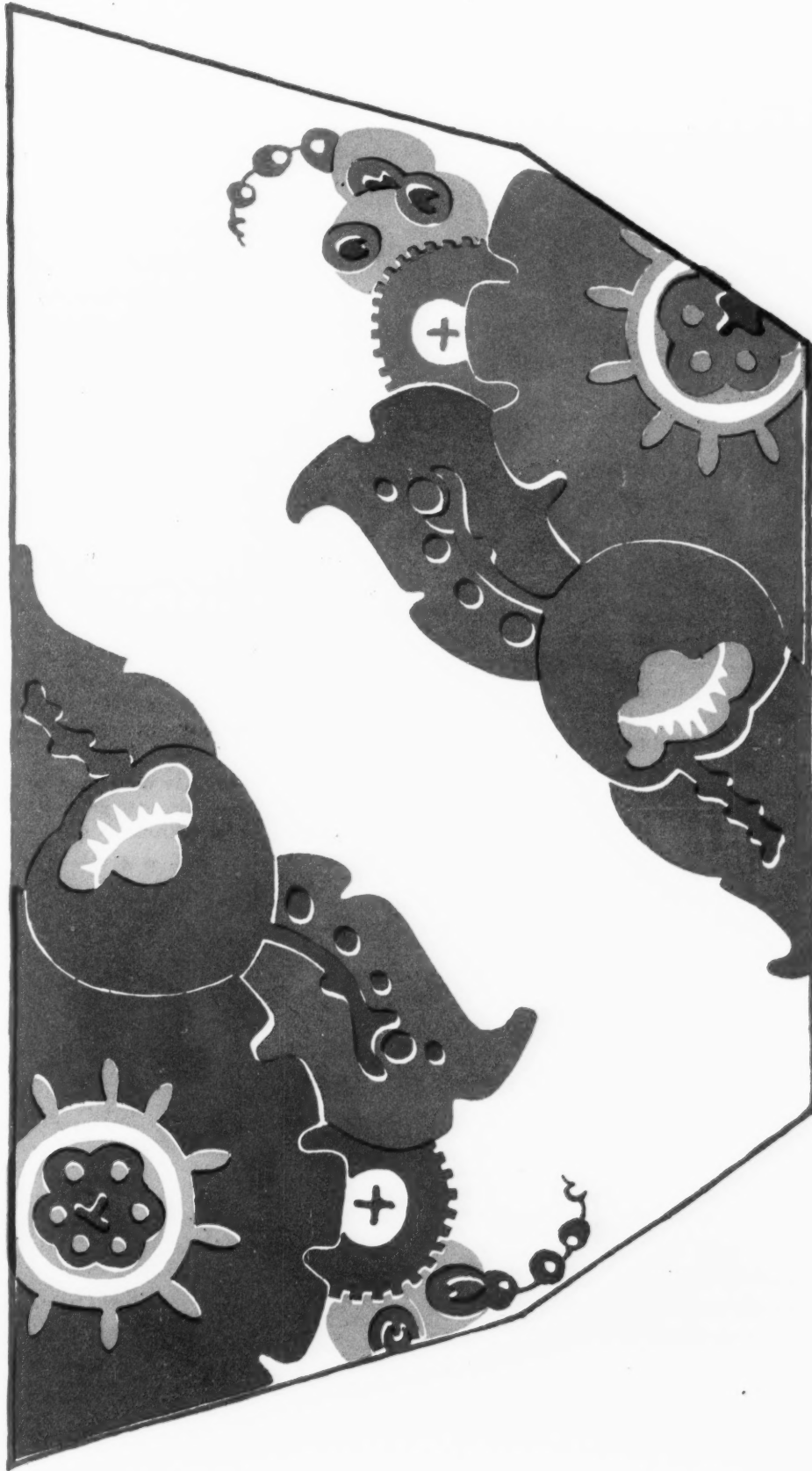




Eva Brook Donly—Tree and Leaf Motifs

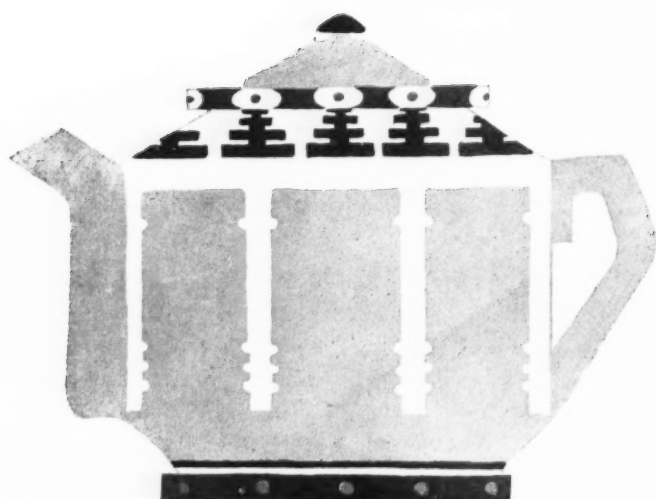


Eva Brook Donly—Tree and Leaf Motifs



Bowl—F. Landan





Helen Rutan

## THE HAND MADE POTTERY TEA SET

Ida Wells Stroud

WHO is there who does not remember the many happy hours of childhood spent in making mud pies, or in modeling with pail and shovel the damp sand on the beach?

There is sheer happiness in the mere making of something, even though it be formed only of wet sand that the next wave may wash away. Some of us seem never to have outgrown our love for these things, as evidenced by a class of grown ups modeling wet clay into pottery forms.

O! the joy of going to a big zinc-lined box, full of moist soft clay and pulling out a large lump. What possibilities there are in that shapeless though pliable grey mass, and how one enjoys the dreams of what may come of it! Then with that happy spirit, the kneading and patting begins.

Then the rolling out of a pie to form the base of bowl, or perhaps a tile, and the cutting out of base and some long strips of the clay with which to build up the sides.

Over to the long table then we bring our pies and strips and with our work on a twirler, sit there patiently building on strips and bits, little by little, until something of the semblance of a bowl appears, or maybe a vase or a tea pot. Now comes the rub. This most pliable piece of clay must be made to conform to the design first made and it must be pushed in here and up there, then out somewhere else.

Around and around the twirler is turned so that all sides may be watched and worked upon all the time. A cardboard profile is cut, according to the original design and used as a test, on the growing model, which must be worked upon until it conforms to the profile.

The inside of the bowl must be smooth and well worked together as well as the outside. Handles and spouts are put on afterwards. When all seems satisfactory to the one doing the work, the presiding spirit of the class, our good Professor Robineau, looks the work over again and points out any defects not previously noticed by the pupils. Nothing escapes the trained eye of this most efficient expert and one is fortunate indeed to have had the pottery work under her able instruction. One does not always meet an instructor so lovable and kind and withal so capable.

When all defects have been remedied, and the work is as well done as possible, the piece is set aside, on a screen, to dry. Until it reaches this point it must be kept damp, and for this a zinc-

lined locker called a damp box is used for storage, between lessons, for this point is not arrived at in one day. It takes two or three days for the clay to become dry enough to be scraped down or sandpapered to insure a smooth even surface, but if it is to be carved, this is often done as soon as the piece is leather dry. After the design has been traced on, by a slight incision with a sharp tool, sometimes a hard sharp pencil, it is carved so that part is left standing and the background to the design cut down, perhaps an eighth of an inch. This must be deep enough to allow for the glaze settling in the lower parts. Sometimes, for instance, around the top of a bowl, the background is perforated, giving a very pleasing effect. The sandpapering is the last thing to be done before putting on the glaze. In the classes in Syracuse University, the first firing is done after the glazing and very often a piece comes out entirely satisfactory at one firing. Sometimes two or three are necessary. All this hand building is very interesting to do, but, to the writer, cannot be compared with the joy of making a piece on the potter's wheel, which spins around at a dizzy rate while the wet clay is pressed between the hands held rigidly over it.

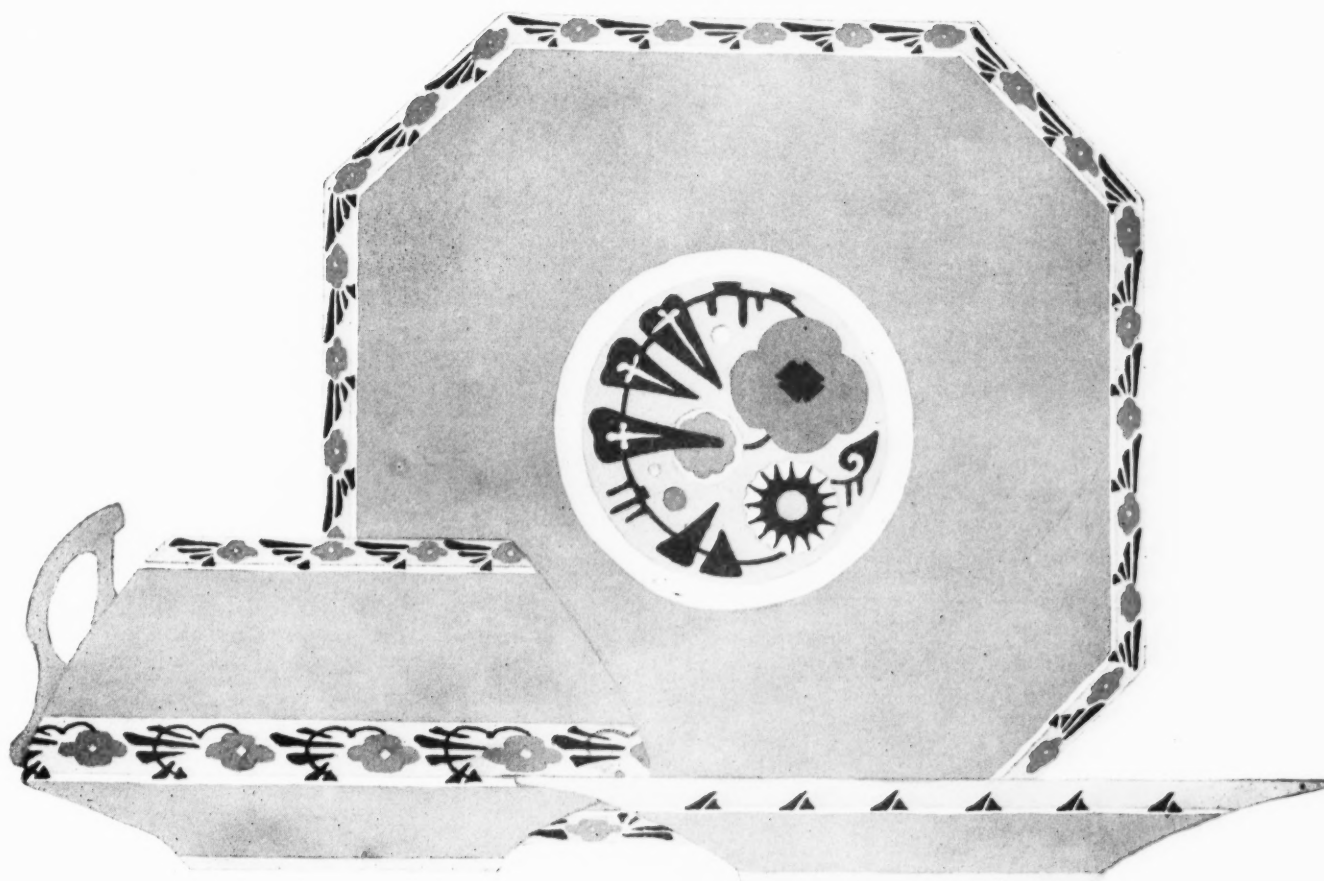
The first difficulty is to learn to centre; this having been accomplished the rest is all delight even when the results are not all that could be desired. When the pieces that have been thrown on the wheel have dried a day or two they are put back and trimmed down, both inside and out with tools, to make them smooth and to improve and refine the shapes. Cups, saucers and plates are usually done by casting so that all will be alike, then trimmed or sanded to finish ready for glazing. The glazes are in powdered forms and are ground in water and a thin solution of gum tragacanth. This is applied with a soft brush to the outside and poured inside the pieces, which are then fired for several hours to bake the clay and bring out the colors of the glazes.

The teapots shown here were designed by students of Hilda Feldman and the other pieces to go with them were done under the instruction of Clara Stroud.

\* \* \*

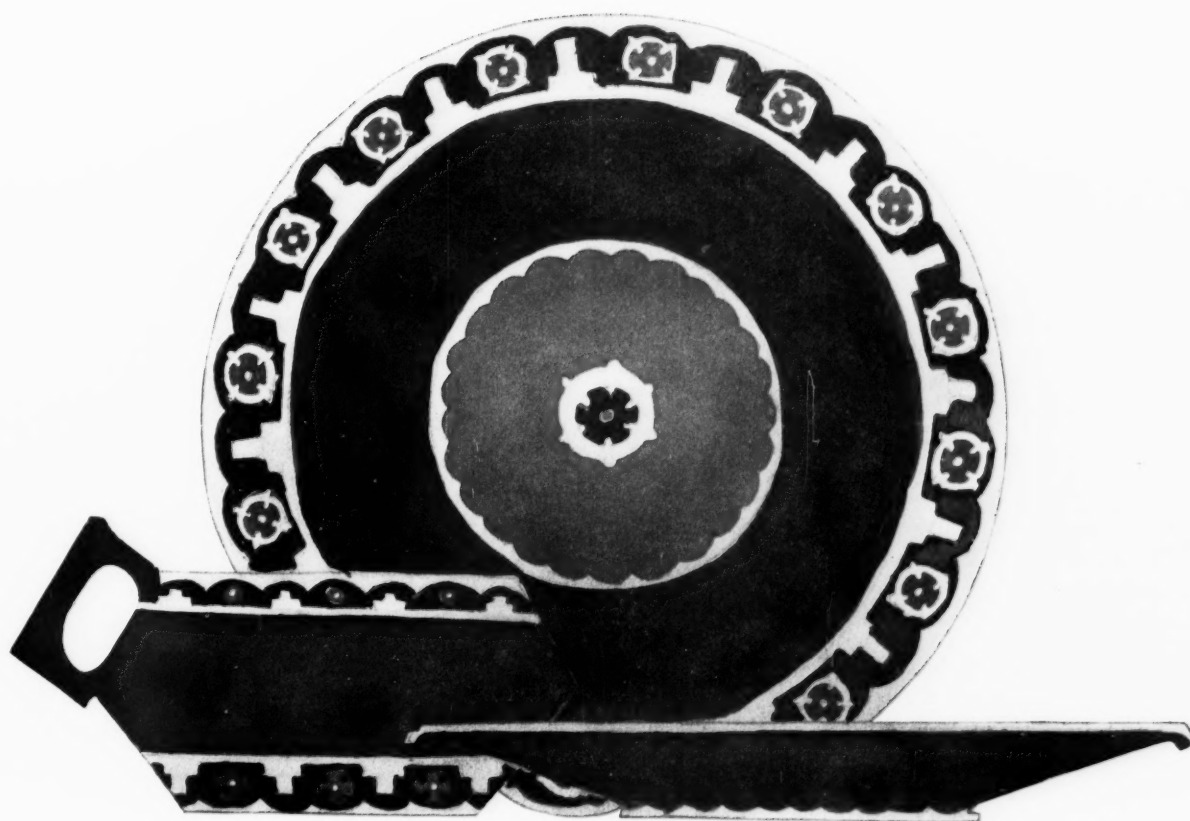


Marjorie E. Dippel

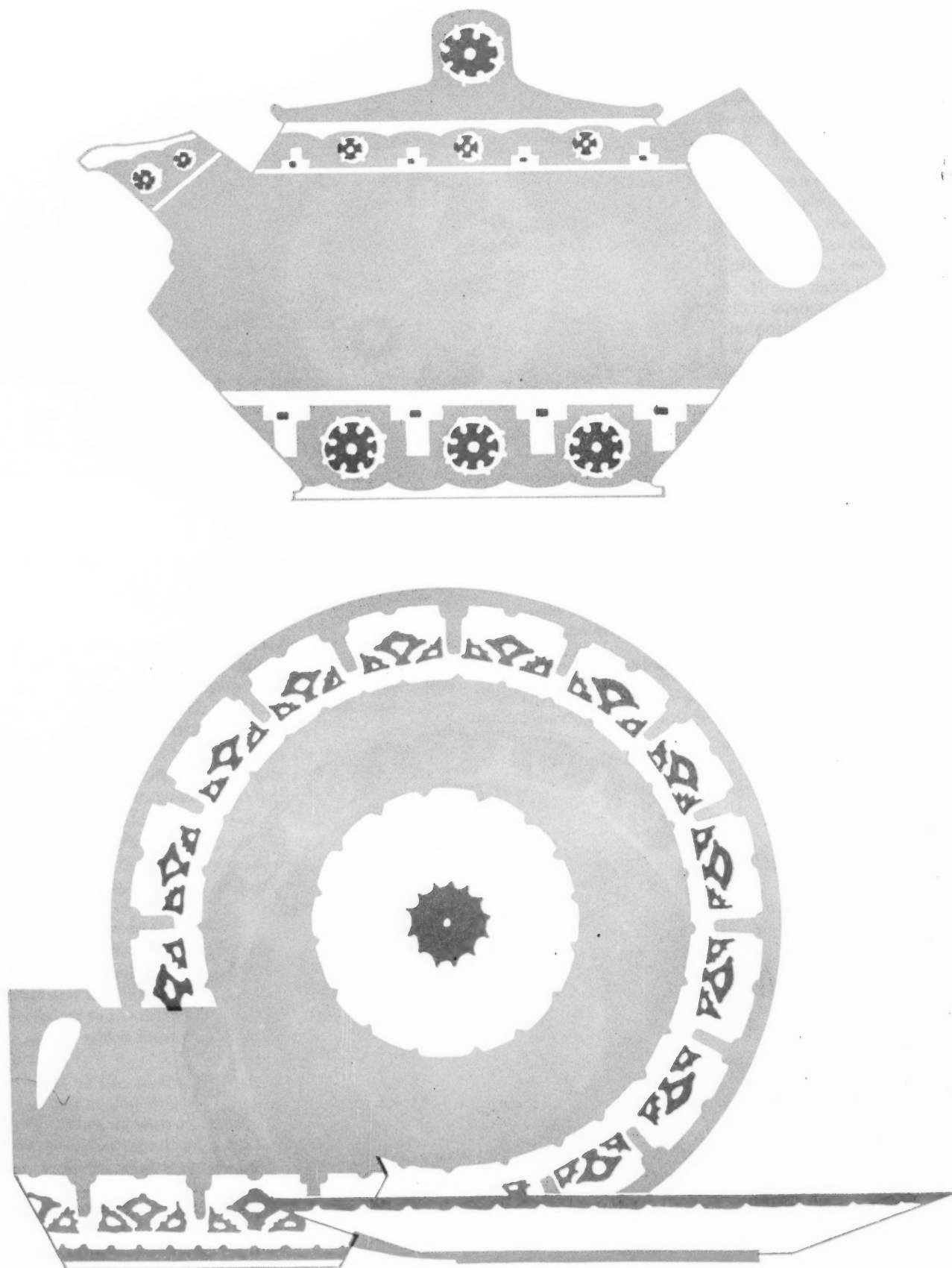


Marjorie Dippel

Background Pearl Grey, design in Wistaria, Dark Green and Old Rose

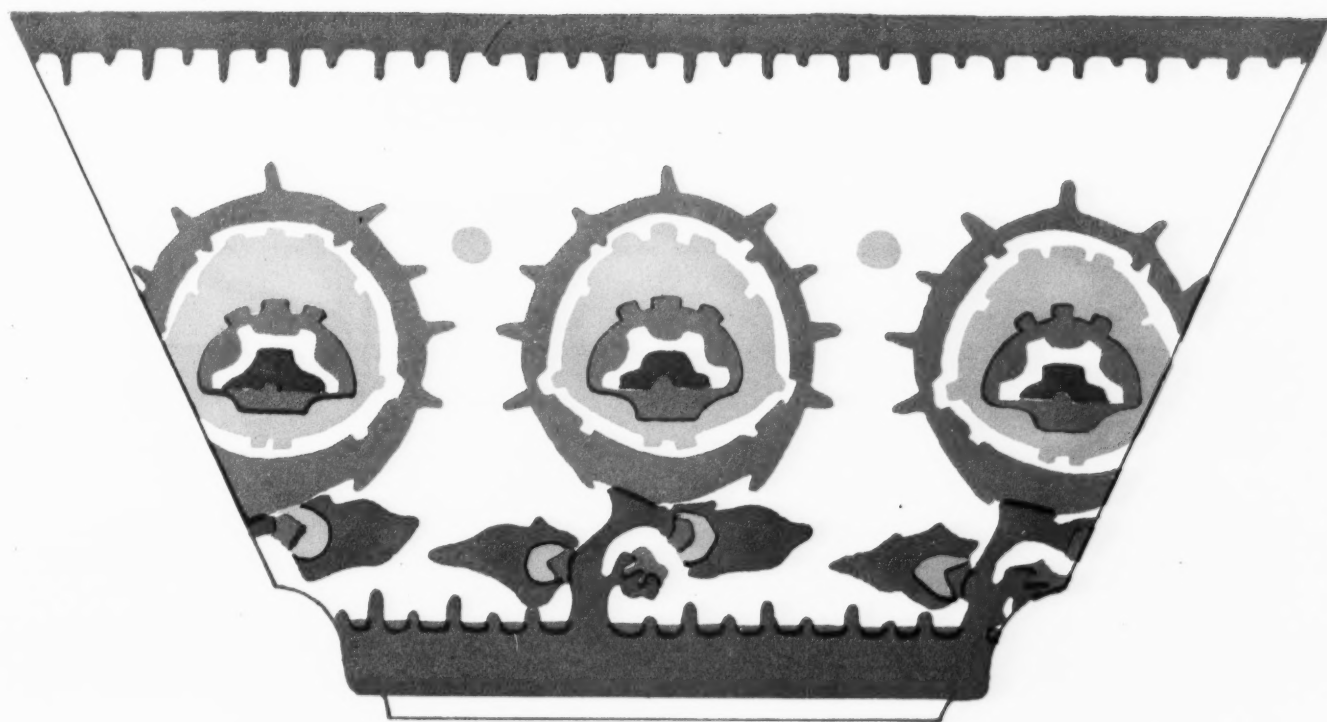
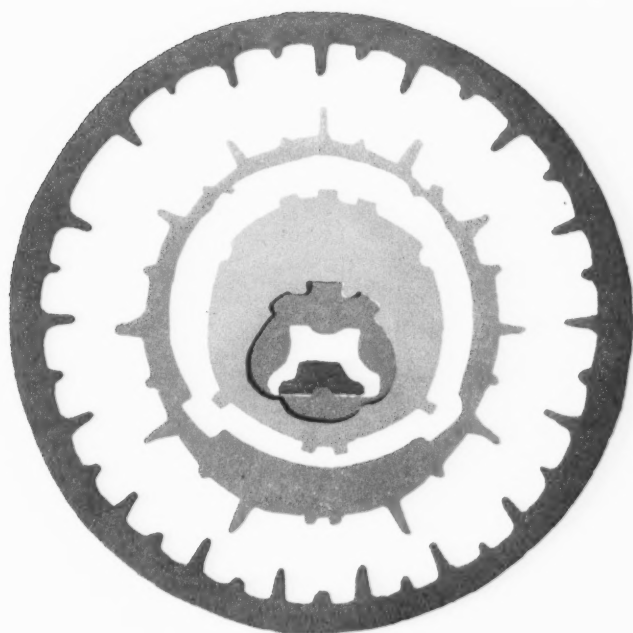


E. Abell



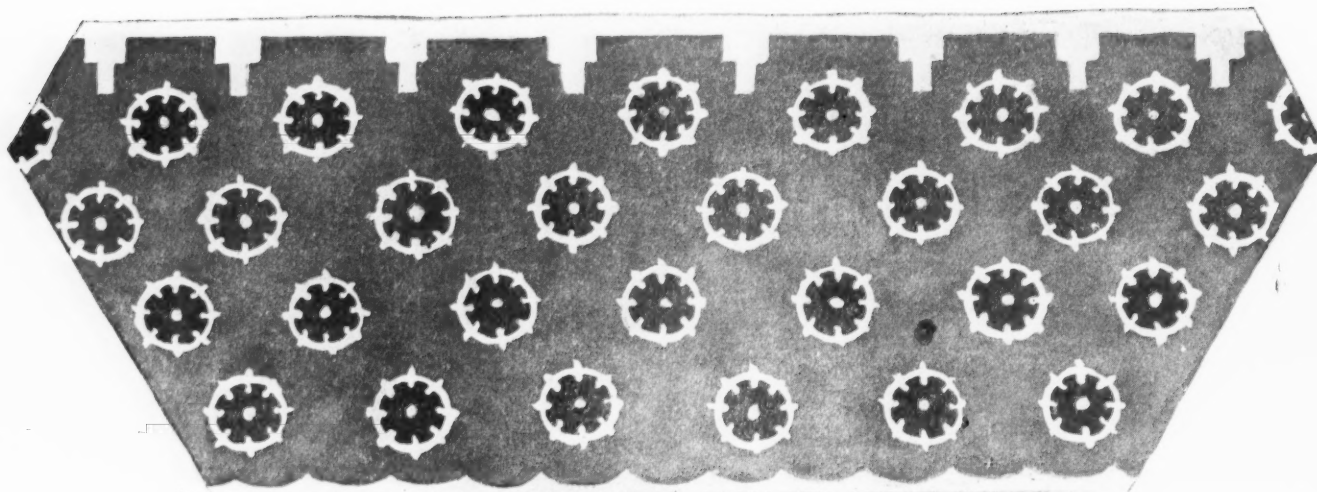
Designs by Students of the Fawcett School





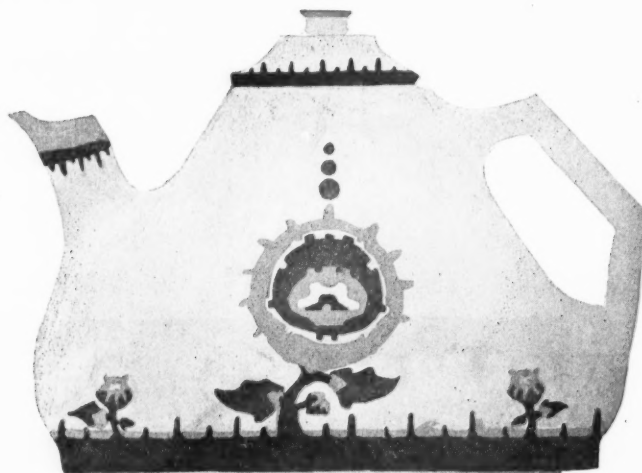
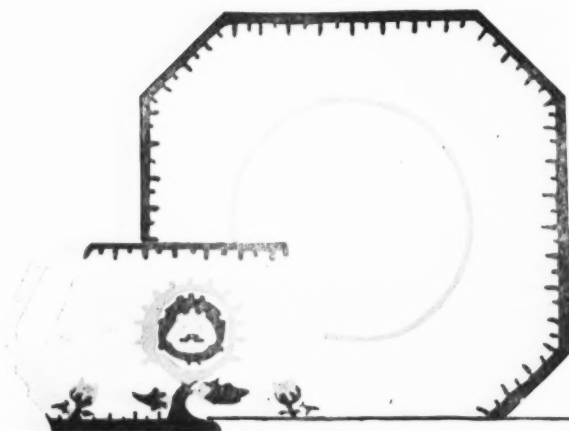
V. C. Shipman

## DESIGN



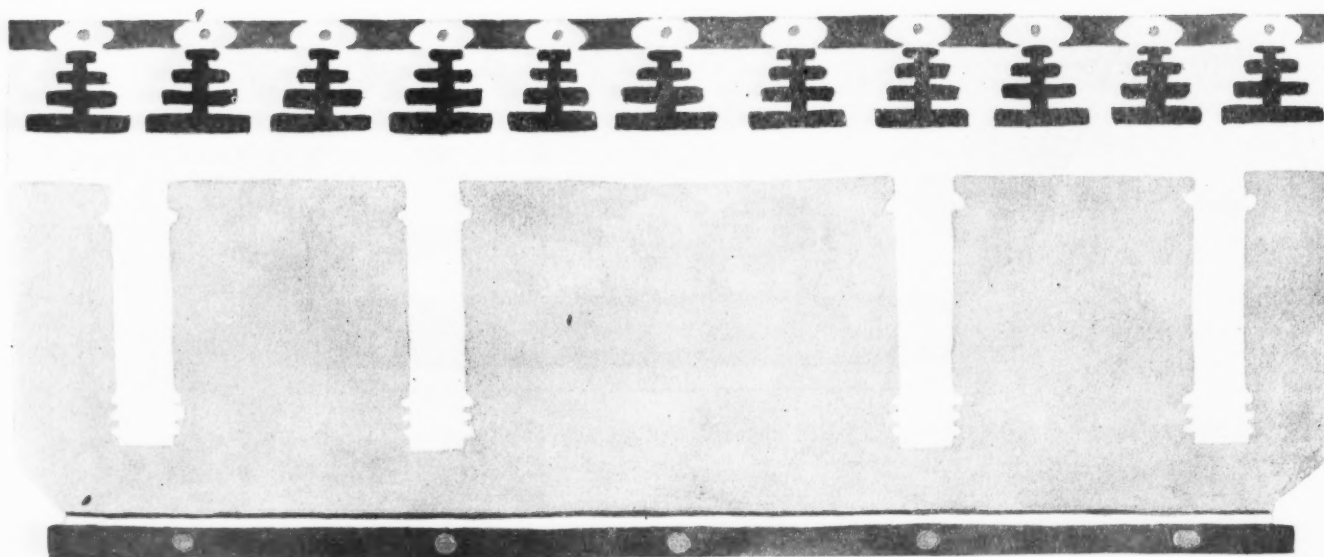
E. Abell

Background Yellow, flowers White and Green



V. C. Shipman

Background Satsuma, dark borders Green, center design Amethyst, Scarlet, White and Green



Helen Rutan—Third Year Design

Background Amethyst and White, top and bottom borders, Green, motif Scarlet with White Top and Yellow Spots tree-like

# DESIGN

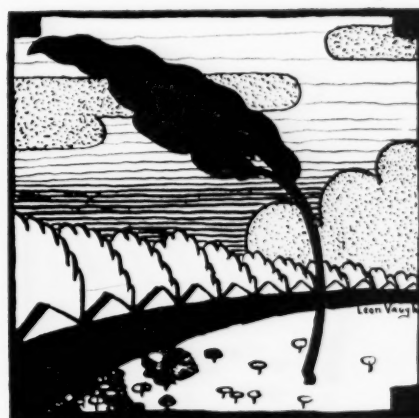
53



May Warner Cole—January



Blanche H. Webster—February



Leon Vaughn—March



Irene Ewing Davis—April



May Warner Cole—June



Blanche H. Webster—May



Leon Vaughn—June



Irene Ewing Davis—June



May Warner Cole—June



Irene Ewing Davis—September



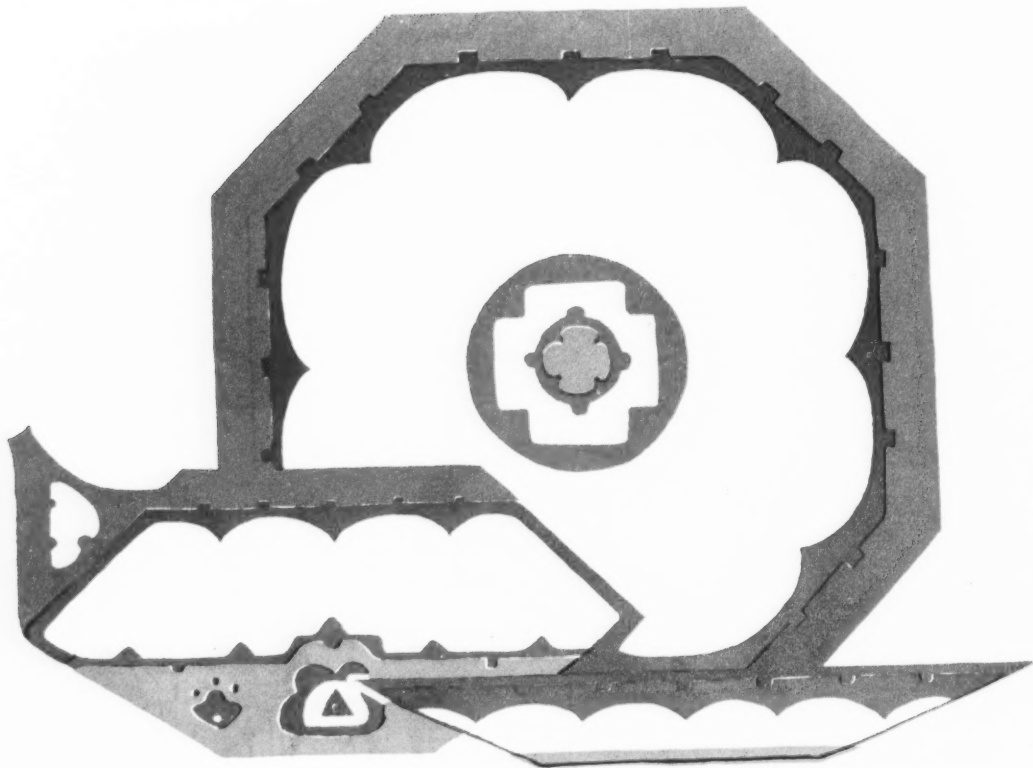
May Warner Cole—July-August  
Medallion Contest—Mentions



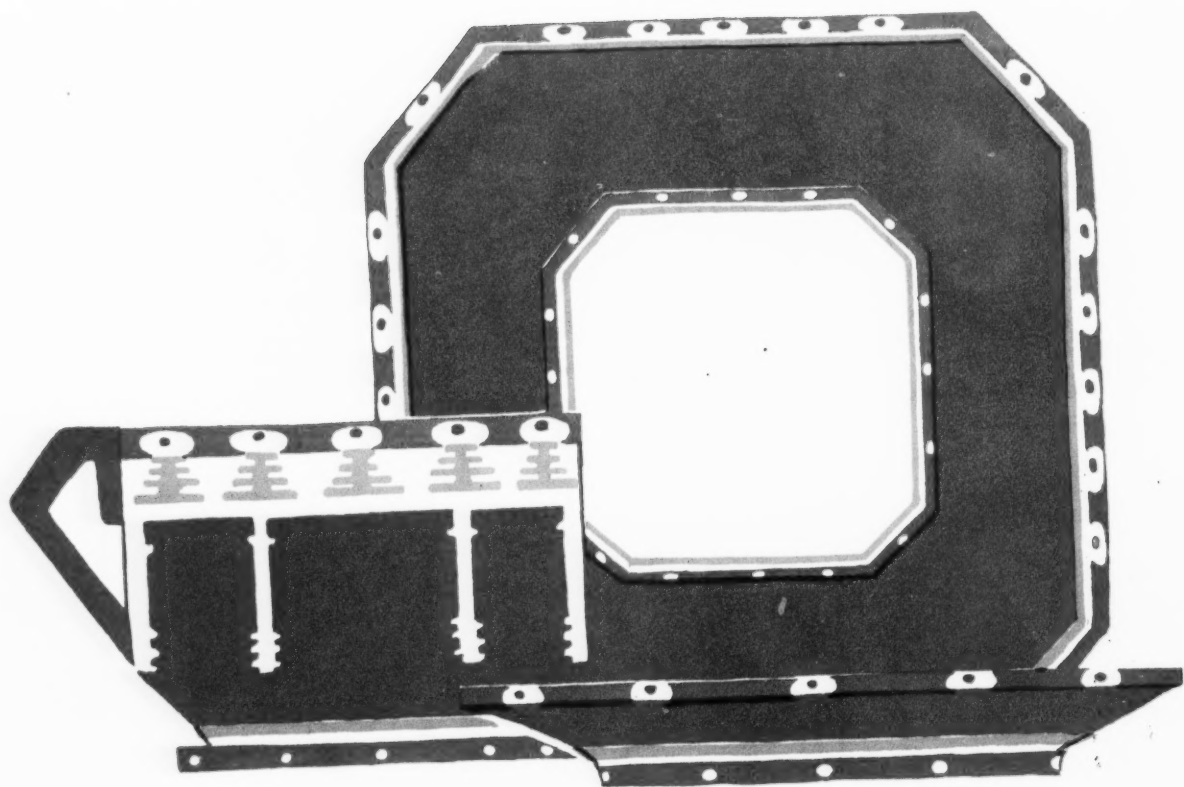
D. Millar—October



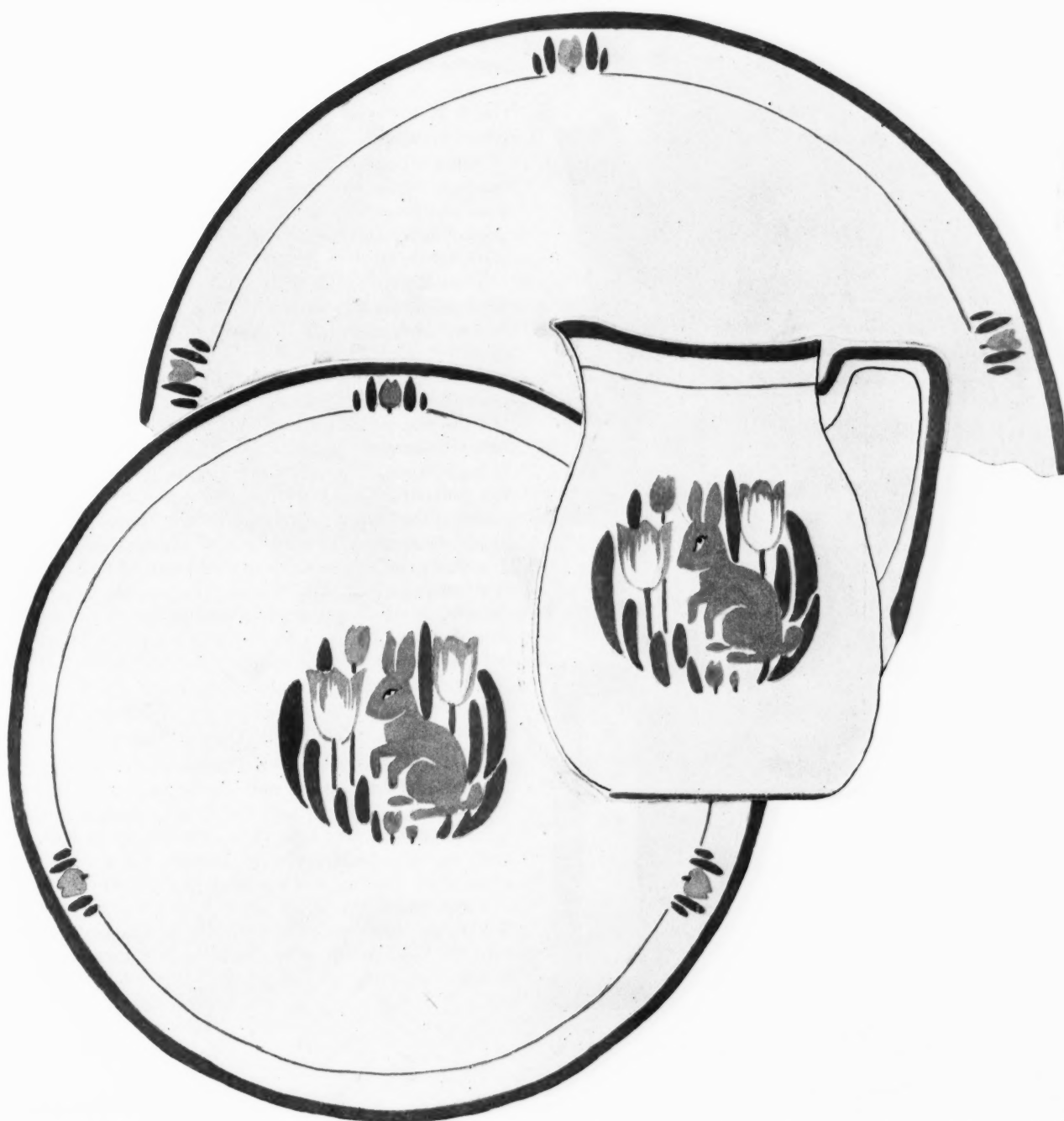
## DESIGN



M. G. Woods



Helen Rutan



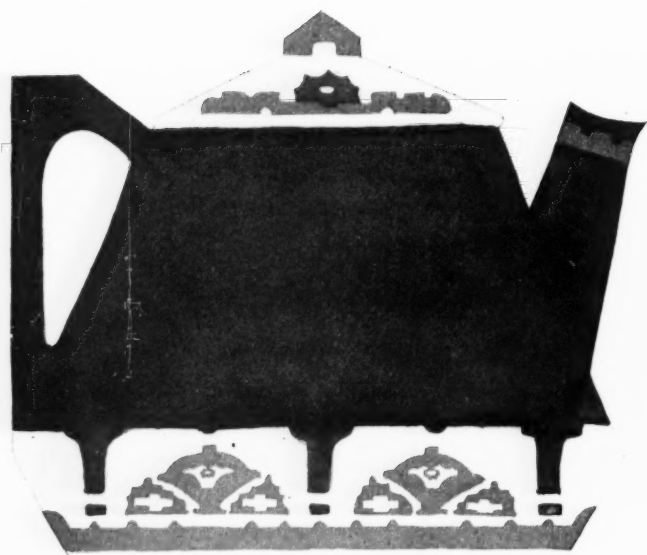
### BEGINNERS' CORNER

*Jetta Ehlers . . . 328 Belmont Avenue, Newark, N. J.*

#### CHILD'S BREAD AND MILK SET

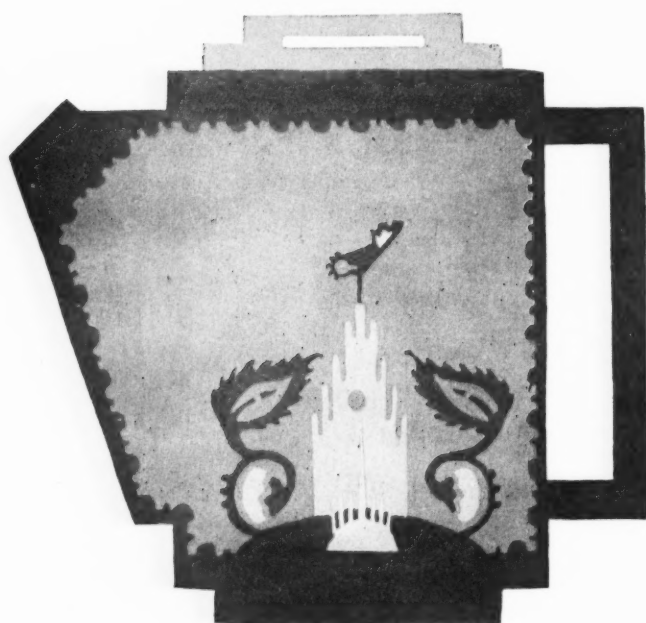
AS a slight change from the usual things for table service we have been working out, I am giving as a problem for this month, a set for a child. Even though you may not have a child in your family circle who would enjoy owning such a set, most of us are "Aunty" to the progeny of numerous friends and so will readily find some kiddies who might treasure a set of their very own. In planning a set for this purpose one turns naturally to the familiar members of the animal world which all wee people love. There is a wealth of material from which to choose but as a tiny maid I know just adores Johnny Cottontail, it happens that it is he who stands so decoratively in the tulip bed, just as I once saw one of his kind. The decoration of things for children should be kept very simple. Little folks react very

quickly to a suggestion of humor, and any bird or animal that is "doing something," quickly catches their fancy. The desire to get down to the bottom of one's bowl of bread and milk to more quickly find Brer Rabbit, I am sure, will help that wee person whose appetite is none too good. The color scheme used is very simple. Most sets procurable in the shops are of the ordinary white china, so the directions are for flat color. Once in a while, however, an attractive set may be had in the soft glaze wares, and so I will add the colors for enamels. It is optional whether you use the medallion on the plate since the bowl is intended to stand on it, but if the plate is to be used alone then by all means add it. The bowl has three florets in the border and the plate five. It is also used on the other side of the pitcher, placed in a corresponding position to the medallion on the front, and not in the border. When you have transferred the design to the china go over it with a fine pen and Indian ink. When this is dry, which will be almost instantly, rub it down with a piece of fine sand-paper, or emery cloth until you can just see the line. This is a very important thing to do,



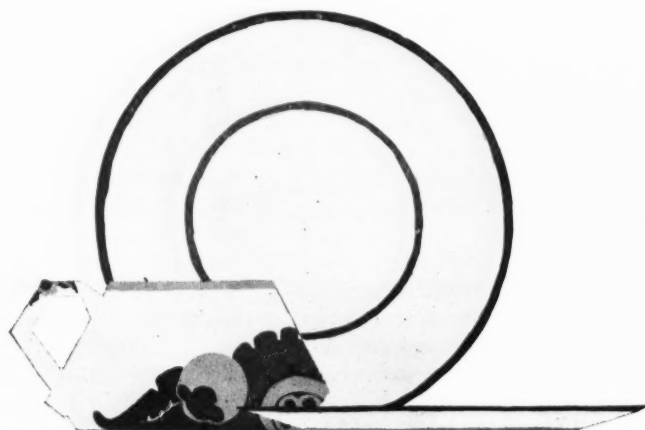
L. Butte

Background Yellow, design Wistaria and White



M. Hauck

Background Yellow, darkest part Green, light part of design Amethyst, dark part Green, bird Scarlet and Yellow



F. Landan

Background White, design in Scarlet, Dark Green, Yellow and Amethyst

If there is a heavy ragged line of the ink it is quite impossible to see whether the color comes up cleanly to the edge of the design or not. So many beginners are apt to slight the preparatory stages of the work through their great anxiety to get at the actual painting.

Greatest care should be taken to make a most accurate tracing. Study the line of the original and constantly refer to it as you proceed with the work, so you may be sure that you are not losing the grace and spirit of it. For this flat color work the colors need to be ground exceptionally well. I use a square of ground glass and a small ground glass muller, and am more than repaid for any extra outlay of "elbow grease" by the perfect velvet-like quality of the color. It is not possible to lay a clean transparent wash if the color is grainy, so do not spare your efforts in this direction. Then, too, the condition of the brush is important. If the corners of your square shader are worn down, which comes about much quicker than one might believe, throw the brush away. Much better economy to invest in a new one. The colors used for painting the set are—Rose for the tulips, Grey Green for the leaves and bands, and Pearl Grey for the bunny. Apply the color with a small square shader (a No. 4) working the color into the brush until it is very pliable. Lay this in with smooth clean strokes and do not fuss back into it when once it is laid. As no other outline is used with this design it is very necessary to have the edges clean cut and crisp. Fix plenty of tooth-picks wound with a tiny bit of absorbent cotton before you start painting, for with this invaluable little tool the edges may be easily cleaned and straightened.

For treatment with enamels use Pink for the flowers, Grey Green for leaves and Pearl Grey for the rabbit.

For our "don't's". Do not make a hasty and careless tracing. Study the original well so you may fix it in your mind. Do not make a heavy line of India ink. Always rub down with sand-paper to a very light grey. Do not try to work with color that has not been perfectly ground, for this type of work especially. Do not use anything in the decoration of sets for children which would not be of interest to the average child. Try to get some touch of fun into the design and remember that the familiar things are best for this purpose.

♦ ♦ ♦

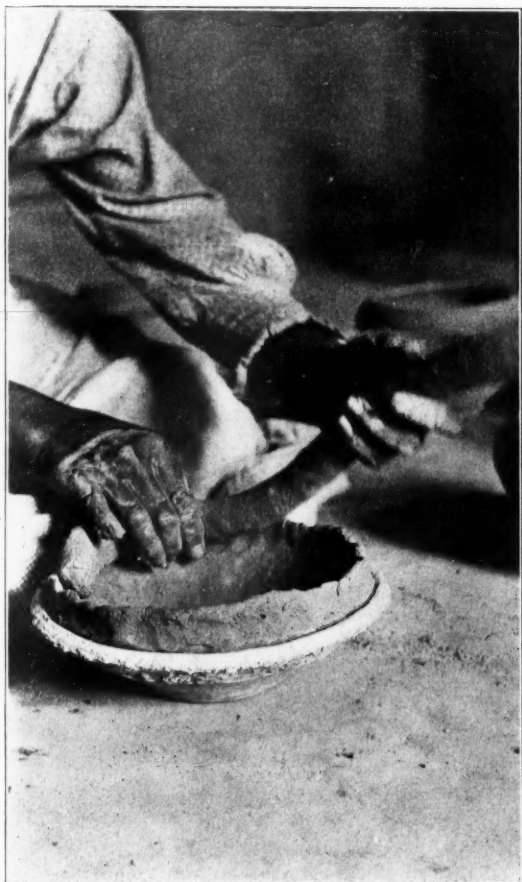


# PUEBLO POTTERY MAKING

*By Dr. Carl E. Guthe  
Published by the  
Yale University Press*

A most interesting and instructive text book on Pueblo hand-built pottery has just been sent out by the Yale University Press. By courtesy of Phillips University, a few of the 35 plates of the book are shown in this issue of DESIGN.

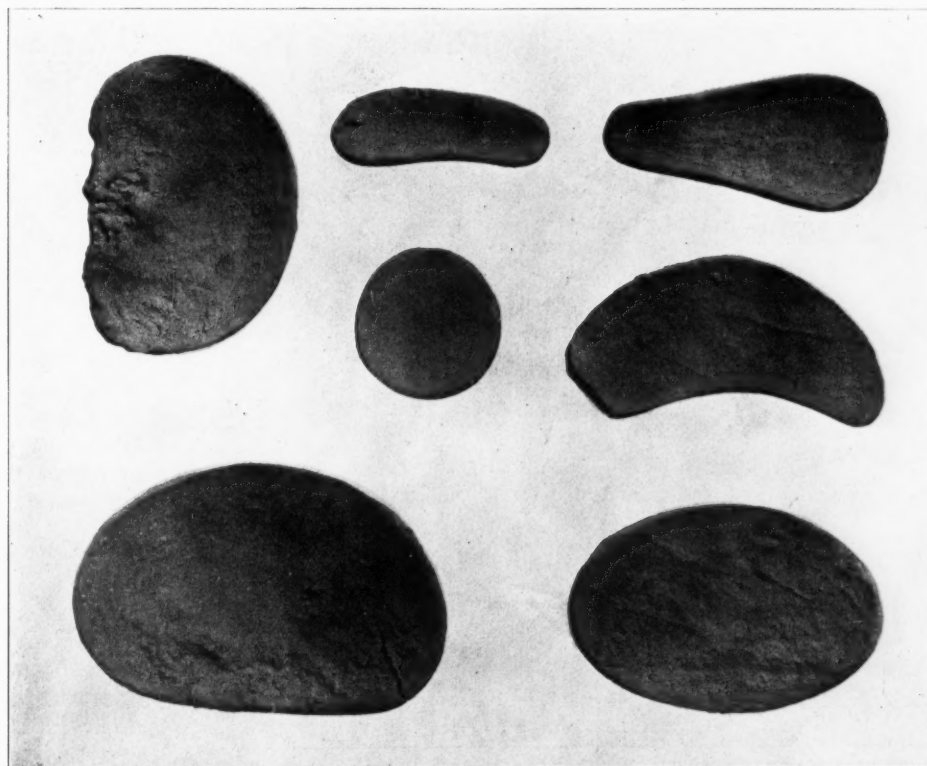
The many figures in the text show very clearly the method and style of decoration, as practiced in the Pueblo Indian town of San Ildefonso by a group of expert Indian women, of which Maria Martinez is the leading artist potter and decorator. In connection with an archeological survey of



Applying the first roll of clay to the base. Roll is held in left hand and flattened, pinched into place in inside of rim.



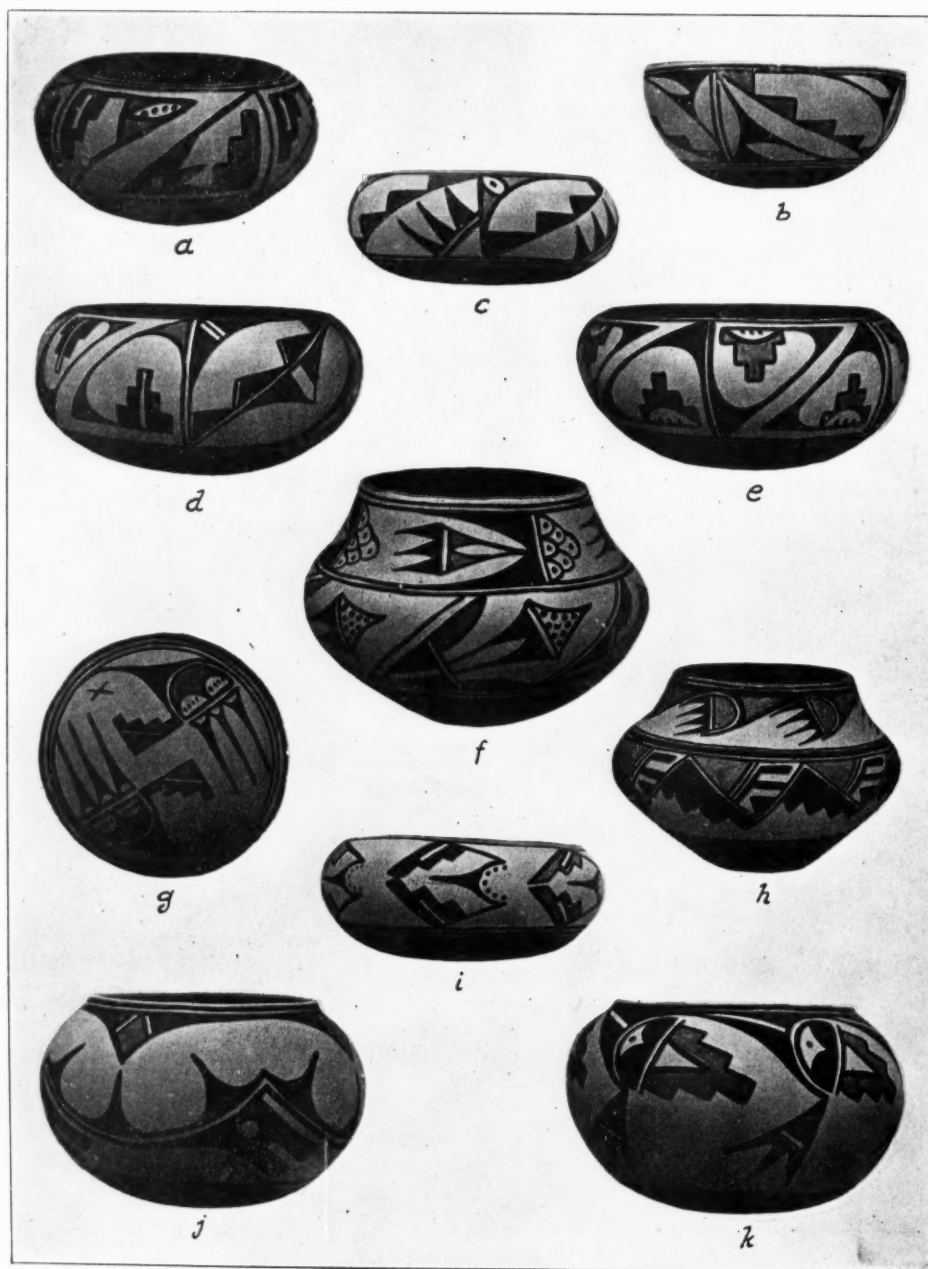
Note junctions of roll on interior of bowl



Kajepes—Used to shape and smooth



Modern San Ildefonso Pottery



Polychrome Pottery by Maria Martinez

the Southwest carried on by Phillips University, Dr. Guthe made a careful study of the San Ildefonso pottery work, because of the value of pottery as evidence of the state of civilization of the past, for the Pueblos of today live in almost exactly the same way, and practice almost exactly the same arts, as did their ancestors of a thousand years ago.

Dr. Guthe writes as follows: "Living a sedentary, agricultural life in arid country, it was inevitable that the Pueblos should early have developed into expert and prolific potters; and so pottery, in the form of sherds scattered about their former dwellings, and of vessels piously interred with their dead, is the most striking, the most abundant, and the most readily accessible form of evidence to be dealt with by the Southern archeologist. The value of pottery to the student of the past cannot be more happily expressed than in the words of the historian Myers: 'When with the soft clay which has, so to say, no natural shape or utility at all, the human hand, guided by imagination, but otherwise unaided, creates a new form, gourd-like or flask-like, or stone-bowl-like, but not itself either gourd, or skin, or stone, then invention has begun, and an art is born which demands on each occasion of its exercise a fresh effort of imagination to devise, and of intellect to give effect to, a literally new thing. It is a fortunate accident that the material in question, once fixed in the given form by exposure to fire, is by that very process made so brittle that its prospect of utility is short; consequently the demand for replacement is persistent. The only group of industries which can compare with potmaking in intellectual importance is that of the textile fabrics, basketry and weaving. But whereas basket-work and all forms of matting and cloth are perishable and will burn, broken pottery is almost indestructible, just because, once broken, it is so useless. It follows that evidence so permanent, so copious, and so plastic,



Modern Polished Black Pottery

that is to say so infinitely sensitive a register of the changes of the artist's mood, as the potsherds on an ancient site, is among the most valuable that we can ever have, for tracing the dawn of culture."

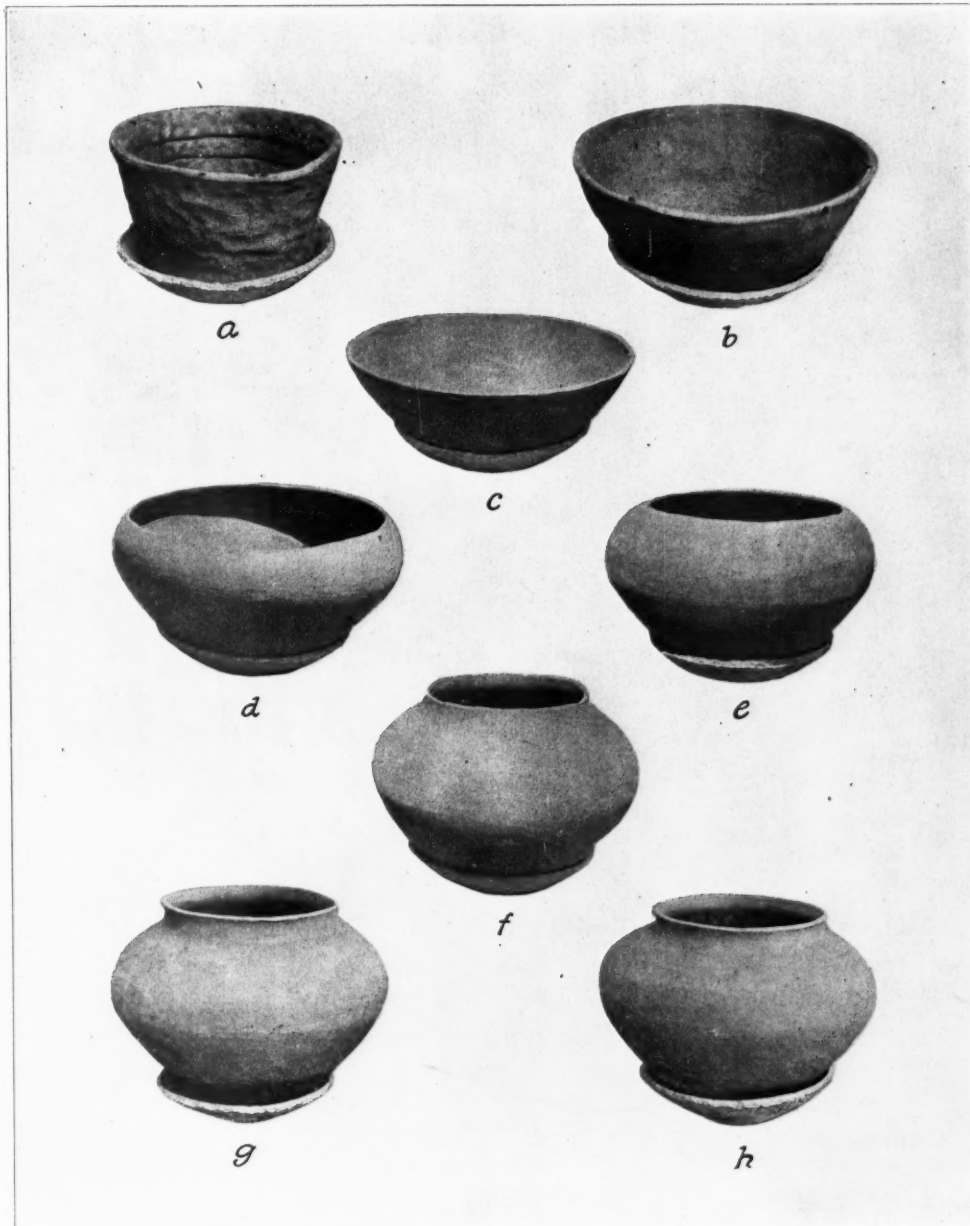
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#### MEDALLION COMPETITION FOR MAGAZINE COVER

We are showing in this issue over a page of designs which received mention in our Competition for Medallion Covers. The winners of prizes were: May Warner Cole, of Seattle, Wash., Irene Ewing Davis of Seattle, Wash., Dorothy Bulkley of Duluth, Minn., and Mary C. Stalling of Hood College, Frederick, Md. For Mentions, to the above names should be added Leon Vaughn of Santa Maria, Calif., Blanche H. Webster of Sonora, Calif., and D. Millar of Lawrence, Mass.

Prizes and Mentions were a very commendable lot of designs. Some very interesting medallions by Mrs. Catherine Richter, of Long Beach, Calif., came too late for the Competition.

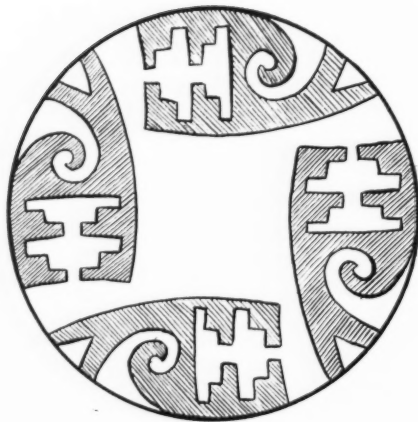
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#### Successive Stages in Moulding of an Olla

- a—lower well built up of rings of clay.
- b—sides flared and smoothed with Kajepe.
- c—further flared and smoothed.
- d—shoulder built up.
- f—neck built.
- g-h—Neck flared and finished bowls have been drifted in moulds to allow more on lower sides.





a



b



c



d

### Black on White Bowls of Classic Pueblo Period

(Continued from page 42)

- 7—Square wire twisted to the right, one round wire and two strands of twisted wire wound on alternate faces.
- 8—Four square wires put together and twisted as one.
- 9—One strand of twisted wire and one of round wire twisted together.
- 10—Two strands of twisted wires and one of round wire twisted together.
- 11—Two round wires twisted together quickly.
- 12—Two round wires twisted together slowly.
- 13—Two pieces of square wire, each twisted to the left, afterwards put together and twisted to the left.
- 14—Two pieces of square wire, one twisted to the right, one to the left, afterwards put together and twisted to the left.

The piece which was originally twisted to the right is now nearly unwound, owing to the left-hand twisting it has undergone.

- 15—One piece of small twisted wire (two small wires twisted to the left) and two large round wires put together and twisted to the left.
- 16—Two strands twisted wire (right-hand twist) put together and twisted to the left. Opening out.
- 17—Two large round wires twisted together. Two small wires afterwards wound in the hollows.
- 18—Two large round wires twisted together. One strand beaded wire in the hollow.
- 19—Three strands round wire and one of twisted wires coiled on a large wire.
- 20—Flat wire, or strip, and beaded wire coiled on round wire.